DV-IP Manual v.1.0.1

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Please note: Instructions for DV-IP Viewer are found in the application's help files.

Getting Started

Packing List

Before connecting your unit, you should remove all items from the box and check you have each component listed below.

Your DV-IP package should contain the following items:

- DV-IP Unit
- External Power Supply
- Power Leads – 1 US, 1 Generic (without plug)
- CD-ROM
- Quick Start guide
- RS232 Comms Cable
- 485-bus cable with ferrite clamp filter
- Front and Rear rackmount brackets
- Adhesive feet

If any of these items are missing, please contact Customer Services at your distributor or Dedicated Micros.

Compatibility

PC

The performance of the DV-IP Viewer and HTML Pages is influenced by the specification of the PC on which they are run. Performance can be maximised by ensuring processor speed, RAM and the Graphics Card are all of a high specification.

Operating Systems

The DV-IP is supported on **Windows 98SE, ME, NT4 SP6, 2000 and XP**.

For best performance, set the colour quality on your PC to 16-bit. This can be done in **Display Options> Settings> Colour Quality**

ActiveX

By default, the security settings in Internet Explorer will not allow the DV-IP to show images. In the Security Options of the browser (**Tools> Internet Options> Security> Custom Level**) the ActiveX options (the first 5 options in the menu) should be enabled, or set to prompt at the very least. When set to prompt, confirmation is required each time a page is updated, or the chosen image view altered.

Web Browsers

The DV-IP HTML Pages are compatible with **Internet Explorer for Windows v5.5 onwards**, and **Netscape Navigator for Windows 4.7x**.

Serial Cables

Use only screened cables when connecting to Serial Ports one to four of this equipment. Ensure that the screen of the cable connects to the equipment chassis through the D Type backshell and that the backshell is securely fixed to the equipment chassis using both fixing points. Failure to do so may result in equipment malfunction. A screened RS232 cable is included with each unit.

Physical Set-up

Please ensure the following are available and have been tested prior to the installation:

- Mains point
- Network point
- Network cable
- Active Video Signals e.g. at least one working camera feed
- Desktop or Laptop PC with CD-ROM drive and connection to the same network as the DV-IP unit

To rack-mount the unit, screw the supplied rackmount brackets onto the front sides of the DV-IP and mount the chassis into the rack. For desk or shelf mounting, the adhesive feet supplied should be stuck to the base of the unit.

Connect the video signals onto the top row of the BNC connectors on the rear of the DV-IP. Note that the first video channel is enabled by default, so it is advisable to connect a camera to this input.

The second row of connectors allows for loop-through connectivity to other pieces of equipment. Cameras routed to other equipment in this way should be set to 'unterminated'. The default setting is terminated. This can be altered in the **Camera Set-up** configuration page

Connect the PSU to the power input on the rear of the unit. Please ensure the PSU is connected to the unit BEFORE applying mains power. Then apply mains power. The power LED should light up green.

Now follow the instructions below to set-up your unit.

Configuring for Network Operation:

Firstly, obtain the following information from the IT or Network Manager (you can write it below). Note, if you are connecting to a DHCP enabled network, you should not require this info:

I.P. Address: . . .

Subnet Mask: . . .

Default Gateway: . . .

Configuring via a DHCP Server

If you have been advised by the IT or Network Manager that the network you wish to attach to is served by a DHCP server, there is no need to set the IP address, Subnet Mask or Gateway. The DHCP server will automatically configure the DV-IP for operation. By default, the unit name on the network will be the machine serial number (shown on the product sticker).

Alternatively the system name can be assigned using the command **<esc>M\USERNAME\xxxx** where xxxx is a unique system name you assign to the DV-IP. This should be entered at the command prompt (see below for instructions on using a terminal programme to access this). The **Esc** key and **M** should be pressed at the same time.

Configuring via a Terminal Program on your PC

1. Connect the supplied RS232 cable from a PC serial port to the port labelled 'Com 4' on the DV-IP. Do not connect the Ethernet cable at this stage
2. Open your terminal program e.g. HyperTerminal. This can be found usually in your windows start menu under Programs> Accessories> Communications> HyperTerminal
3. If requested, enter a name in the New Connection box. In the **Connect Using** field, select the COM port that the serial lead is attached to on your PC.
4. Configure the serial port settings on the PC for the following:
   Bits per Second: **38400**
   Data Bits: **8**
   Parity: **None**
   Stop Bits: **1**
   Flow Control: **None**
5. Click the connect button in the Terminal programme
6. At this stage, ignore any system messages that may appear.
7. Once connected, type **+++** in the terminal screen to log on. The system will respond back with the **DVIP>** Command Line prompt. Set the IP Address – using the IP Address given to you previously, enter the following command in the terminal session (note that **<esc>M** requires you to press the Esc key and the M key at the same time):
   <esc>M\ETHER_IP\aaa\bbb\ccc\ddd<enter>
   where <esc> is the escape button, aaa\bbb\ccc\ddd is the IP address and <enter> is the enter key
8. Set the Subnet Mask and Default Gateway - type:
   <esc>M\SUBNET\aaa\bbb\ccc\ddd<enter>
   where aaa\bbb\ccc\ddd is the network's Subnet mask, then type:
   <esc>M\GATEWAY\aaa\bbb\ccc\ddd<enter>
   where aaa\bbb\ccc\ddd is the network's default gateway (This may not be required on some networks)

9. Save the Values
   To save the entered values to memory, type the following commands at the terminal session:
   <esc>M\SAVE<enter>
10. Type **reset<enter>** to restart the DV-IP. Ignore any diagnostic info shown in the Terminal Window.
11. Connect a network cable from the RJ45 socket marked 'NET' on the DV-IP to a live, empty network socket.
12. The green network LED will now start to flash.

The DV-IP is now fully installed. Access it over the network by typing the IP Address into the address bar of an Internet Browser. Live images and set-up of the unit can now be viewed over the network.

Configuring via DM Config

DM Config is an advanced tool for configuring the DV-IP. It can be used to easily set-up the unit on a Network. This method is an alternative to the Terminal method above. Ensure HyperTerminal is not open if you are using DM Config.

Warning: When using DM Config, care should be taken not to change settings beyond those indicated below. Changing other values may impair the function of the unit, or cause it to function improperly.

DM Config can be found on the CD-ROM that came with your DV-IP, in the DM Config folder. It can be set-up using its installation programme (dmconfig***.exe, where *** is a version number). Once you have installed the software, please follow the steps below to configure your DV-IP using DM Config:

1. Launch DM Config
2. Load the *DVIPinitv1.cf*g file from the CD
   In the *File* menu, select Open Configuration file, and open the *DVIPinitv1.cfg* file found on the DV-IP CD in the DMConfig folder
3. In the *Comms* menu, set the Comms Type to **Serial(RS232)**
4. In the *Comms* menu, select the option **Connect to device(serial)**
   This will connect to the DV-IP. If you cannot connect, ensure that you have the RS232 lead connected to the correct serial port on both your PC and the DV-IP (The lead should be connected to **Com 4** on the DV-IP). Note - Some laptops may not initialise the serial port correctly if you attach the lead before starting up the laptop.
5. In the *File* menu, select the option **Read Settings from Device**
   You should see a progress bar appear briefly as the settings are read, then the Machine Setting fields should be filled in with the values held on the DV-IP. These include the Serial Number, MAC Address, System Name and Video Standard.
6. Fields that can safely be Changed:
   System Name
   Ethernet IP
   Subnet Mask
   Gateway
   DO NOT CHANGE ANY OTHER FIELDS. THIS CAN IMPAIR THE UNIT'S FUNCTIONALITY. E.g. if you change the User Name, you will need a new unlock code to restore the unit's functionality.
7. The fields **Ethernet IP**, **Subnet Mask** and **Gateway** should be filled in with the values obtained from the IT/Network Manager – IP Address, Subnet Mask and Default Gateway respectively.
8. Check the values are correct, then press **Ctrl** and **S** at the same time, or in the *File* menu select **Write Settings to Device**. The Settings will be uploaded to the DV-IP. You will then see a box confirming this. Click **OK** in the box to proceed
9. There is an empty field at the bottom of the screen labelled **Save Settings**. Click the Send button next to this. After a brief moment, the field should be populated with the

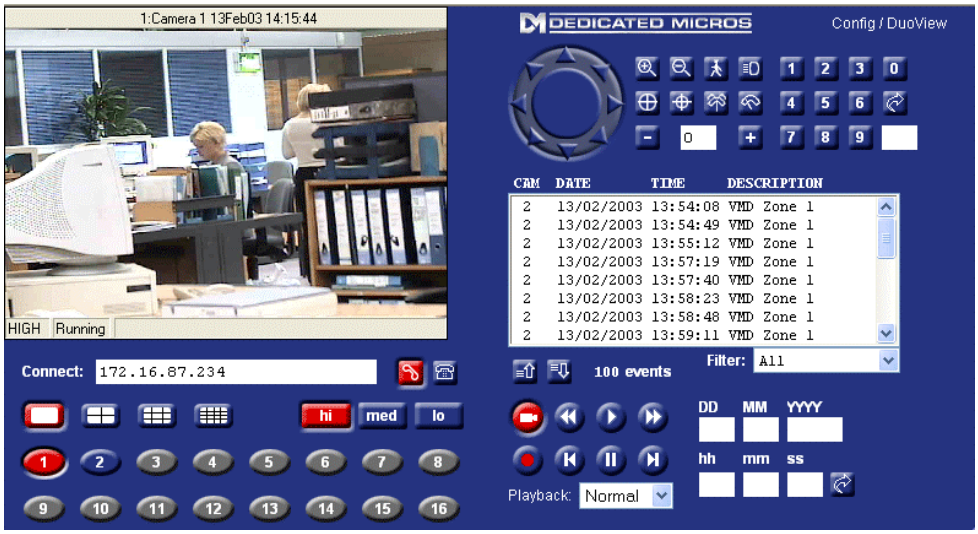
value **P/OK**. This indicates the settings have now been saved and the unit should now be reset:

10. On the program toolbar, the second icon from the right (the one that looks like a spanner) is the **Reset Device** button. Press this now.
    The unit will be reset, and the settings from DM Config written into memory. If you do not perform this reset, the settings will **not** be saved, and the unit *will not operate* on the network.
11. The unit is now ready for operation. Plug the unit into the network, close DM Config and open your web browser.
12. The unit can be found by typing the IP address or Unit Name into the Browser address bar.

Quick Set-up

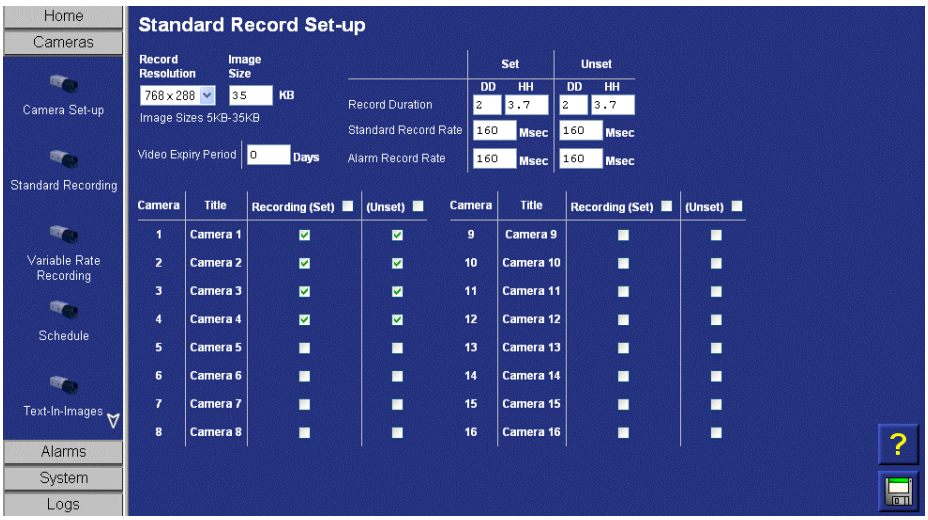
This guide will show you how to set up a simple multi-camera system to record and view.

1. Firstly, complete the steps above to configure the unit for network operation.
2. Open a web browser and type in the unit's IP address to access the unit
3. After a moment, the live page will load, with or without an image, dependant on whether you have a live camera connected.
4. When the live page has loaded, press **Config** in the upper right of the screen



5. If a user name and password are requested, the default user name is '**dm**' and the password '**web**'
6. From the Main Setup menu, select **Cameras**, then **Camera Set-up**
7. In the camera set-up screen, click the **Connected** tick box for each camera you have attached to the unit. Also ensure the **Terminated** tick box next to each is ticked, unless you have video on loopthrough to another device
8. Click the **Save** Icon on the lower right of the screen to save your settings –

9. Click the **Standard Recording** button in the left menu frame



10. Next to the Camera Titles, click the **Recording** tick box next to each camera you wish to record.
11. Click **Save** to save your settings
12. Click the **Home** Main menu Item, then click **Live Page**
13. You should now be able to see each camera you set up by selecting the camera in the viewer. For further operation instructions, please see the **Operation using the Onboard (HTML) Viewer** section

Configuration

To access the Configuration menus, click the **Config** link in the top right of the Live Page. This will take you to the Configuration Menu of the DV-IP. Clicking on the Section Headings in the left frame accesses different Submenus – e.g. clicking on the **Cameras** button will bring up submenus for **Camera Set-up**, **Standard Recording**, **Variable Rate Recording**, **Schedules** and **Text-in-Images**.

The default user name to enter the Configuration pages is **dm**
The default password is **web**

Main Setup Page

The Main setup page is accessed by pressing **Config** in the **Live** or **DuoView**™ Screen, or by clicking **Main Set-up** from the left frame in the **Config** pages. The page gives useful information as to the current configuration of the DV-IP, such as the time on the unit, Software versions, Serial port set-up and Network settings.

The different Main Menus can be seen in the frame on the left of the screen. In the picture above, the **Home** menu is shown.

The DV-IP Viewer software can be installed on a PC by pressing the **DV-IPViewer Software** button on the lower left of the screen, then selecting **Open** when the options **Open** or **Save** are given. This will then commence the DV-IP Viewer installation programme.

Note that the Help Button and Save Button can be found at the bottom right of each screen. The help button provides comprehensive information on each page. The Save button saves the settings for each page.

Help

Save

Cameras Menu

Camera Set-up

This page is used to set-up the connected cameras and define the viewing resolutions of the live images. Note that any changes will only take effect after a save (to save any page, press the **Save** button on the lower right of each page).

Live Resolution - High, medium and low resolution are definable as, 768x576, 768x288, 720x256, 640x576, 640x256, or 352x288 pixels. The x576 resolutions are Interlaced images.

Image Size - From 5KB to 35 KB. The smaller the image the more images can be fit onto the Hard Disk – however, smaller image sizes require greater compression, and are thus lower quality.

Thumbnail - Displays either a Snap Shot or a Live Video Stream of the currently active camera as a reference image in the top right corner of the screem. To change the selected camera, click in the Camera name field.

Connected - If ticked, the DV-IP will try to display the video source. If no camera is attached, a fail image will be viewed. By default, only camera 1 is set to connected.

Title - Allows 16 characters for a camera title.

Terminated - If ticked, the camera is terminated. To enable loopthrough to other devices, this should be unticked. Note that if this is not ticked, and the camera terminates at the DV-

IP, then the video image will not be viewed or recorded correctly.

Mono - If ticked the DV-IP will expect to see a monochrome (B&W) camera.

Coax Telemetry - Determines the coaxial telemetry type on each camera as either **BBV** (Building Block Video), **Pelco** or **OFF**.

Cam-Fail Reporting - Treats camera fails as an alarm on which to dial/connect if enabled in **Alarm Connection Settings** page

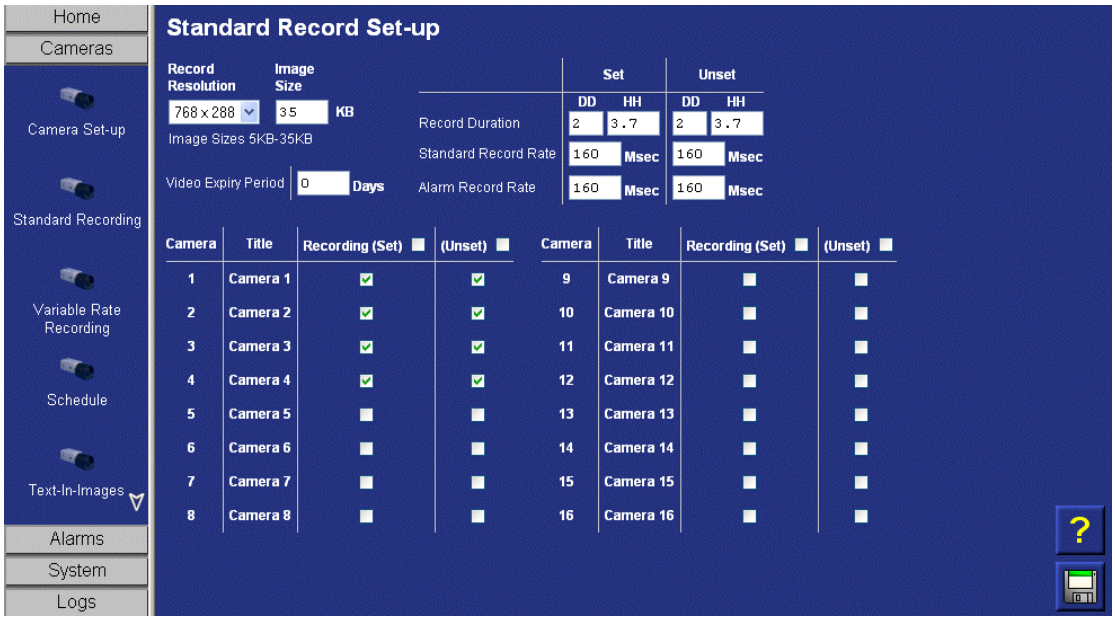
Note - When Coaxial Telemetry is enabled, RS232 telemetry will not be selectable, and vice versa.

Some settings will require a unit reset after saving. To reset the unit, access the **Reset** page from the **System** menu.

Standard Recording

This page is used to configure cameras for standard recording, where all cameras will adopt the same recording profile. More customised camera set-up is undertaken in Variable Rate Recording.

The unit can share a maximum rate of 50pps PAL (20ms), 60pps NTSC between all cameras.



Record Resolution - Definable as 768x576, 768x288, 720x256, 640x576, 640x256 or 352x288 pixels. The greater the resolution, the more detailed the images. The x576 resolutions record both image interlaces.

At very high record rates, the viewing resolutions should be the same as the record resolution, otherwise the picture may not display correctly in the live view. E.g. recording at 50pps (20ms) requires the viewing resolution in Live view to be the same as the record resolution i.e. if you are recording at 768x288 resolution and a 35k image size, hi-res in the viewing resolutions should be set to the same, and viewing undertaken in Hi-Res.

Image Size - From 5KB to 35 KB. The higher the image file size, the better the quality of the image. Very low image sizes will be blocky, and smaller details may be difficult to view. Note – larger image file sizes will reduce the amount of time images are stored on the unit before being overwritten.

Record Duration - The total record time available in (DD) Days and (HH) Hours. This indicates the storage capacity of the system without any alarm recording. This is estimated from size of video storage, the standard record rate and the requested target size of the recorded images. Changing the **Record Duration** will automatically update the **Standard Record Rate**. Changing the **Standard Record Rate** will likewise update the **Record Duration**.

Standard Record Rate – The standard record rate is the common pictures per second setting that all cameras will adopt unless otherwise defined in Variable Record Rate, or in event instances. The Standard Record rate is set in milliseconds (ms). The delay between consecutive images from any one camera is the Standard Record Rate multiplied by the number of cameras being recorded. Changing the **Standard Record Rate** will automatically

update the **Record Duration**. Changing the **Record Duration** will likewise change the **Standard Record Rate**.

Example Record Rates

20ms = 50 pictures per second
40ms = 25pps
50ms = 20pps
100ms =10 pps
125ms = 8pps
200ms = 5 pps
500ms = 2pps
1000ms = 1pps

WARNING: When running the unit at maximum Record Rate (50pps or 20ms in Standard Record Settings), this will affect viewing and network transmission, as the video codecs will be running close to capacity – the DV-IP's priority is to record the footage to the internal HDD, so transmission performance will be reduced. This is exhibited by slow connection to the html pages and reduced viewing frame rates. Multi-user viewing will also be affected. It is not recommended to set the Standard Record rate to 20ms for everyday usage, but rather only for specific situations where this rate is necessary.

Alarm Record Rate - The DV-IP record rate when any alarm configured to change the Standard Record Rate is active. For example, the unit may be configured to increase the recording rate when a door contact is triggered. The Alarm Record Rate is not taken into account in the calculation for Record Duration.

Video Expiry Period - Indicates the maximum time any image can be stored on the hard disk. If the record duration is less than the expiry period, the images will automatically be overwritten.

Camera - Cameras available on the DV-IP.

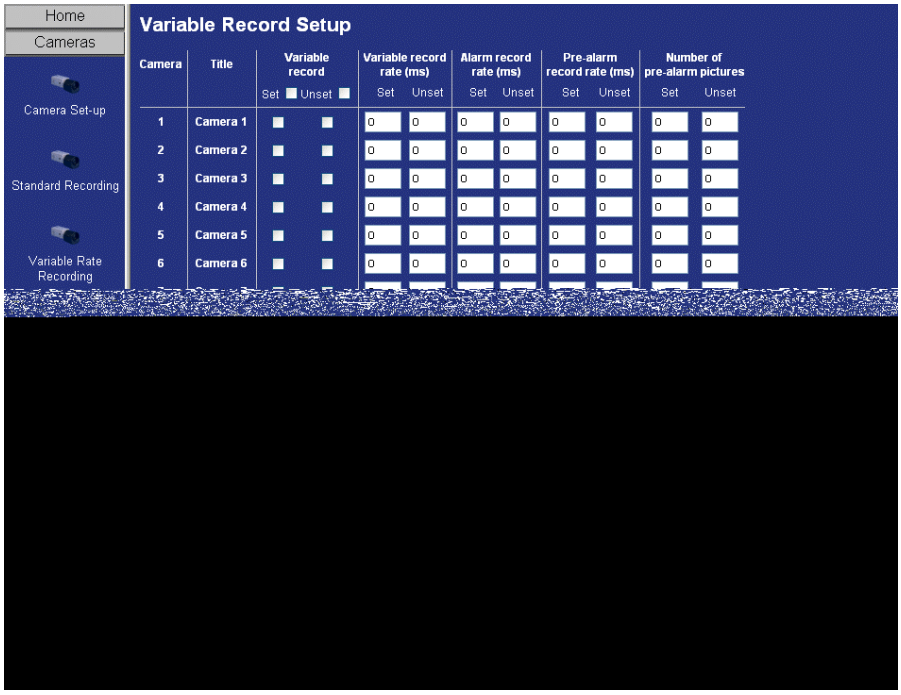
Title - Displays the Camera titles defined in the **Camera Set-up Page**

Recording - Enables cameras for recording. If the tick box next to the title is ticked, this will cause the 8 camera record fields below the title to become ticked. Likewise, if it is unticked, the boxes below it will also become unticked.

Do not forget to save the pages for any changes to become active. You will need to reset the unit for certain changes. This is done through the Reset page of the System menu.

Variable Rate Recording

This advanced page configures each camera for its own individually configured record rates. Note that although Variable record Rates allow for individual record rates, the system maximum is still 50pps across all cameras. E.g. 3 cameras running at 40ms (25pps) is not a valid setting, but 3 cameras running at 16pps (62ms) is a valid setting.



Variable Record - Enables this camera for variable rate recording. If this box is unticked, the camera will adopt the standard recording profile.

Variable Record Rate(ms) - This is the delay between image updates for this camera in milliseconds.

Alarm Record Rate(ms) - Delay between images for this camera when an alarm input assigned to this camera is triggered.

Pre-Alarm Record Rate(ms) - This is the record rate used to store pre-alarmed image(s) on the RAMdisk for this camera. Pre-Alarmed images show images from a period prior to alarm activation – e.g. if a person is caught by a VMD alarm on a camera, the pre-alarm images will show where the person came from before the VMD alarm was triggered.

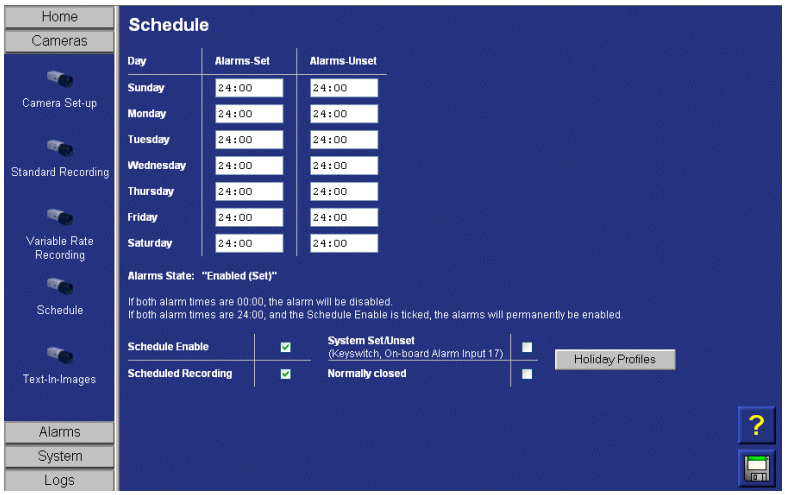
Number of Pre-Alarm Pictures - The number of buffered pre-alarm images stored on the RAMdisk for this camera.

RAM Disk Requirement - This figure is calculated from the number of enabled cameras with Pre-Alarm Recording selected and the requested record image size

Record Duration - This indicates the storage capacity of the system without any alarm recording. This is estimated from size of video storage, the cameras selected for variable rate recording, the record rate of each selected camera and the requested image size (KB) of the recorded images.

Schedule

This page provides a 7-day system Control Timer. This allows for timed schedules e.g. The unit could be switched to alarm-only recording at 5.30pm every day when work finishes.



Day - Provides an automated alarm system configurable Sunday through Saturday.

Alarms-Set - The time (in 24 hour clock i.e. 17:00 is 5pm) when the DV-IP alarms become active.

Alarms-Unset - The time when alarms become inactive.

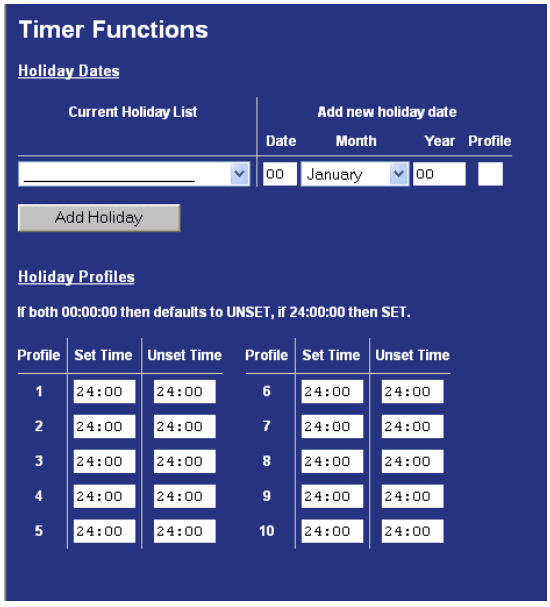
Alarm State: - **Enabled (Set)** or **Disabled (Unset)**. The alarms can be enabled by the Schedule, Alarm Input 17 (Keyswitch) or controlled by both.

Schedule Enable - Enables the schedule, acting on the times entered in the fields for each day.

Schedule Recording – This schedules recording of the cameras. If this is ticked, once the page is saved the recording will operate based on the schedule settings. Additional fields will appear in the Standard and Variable Rate Recording pages.

These allow 2 separate recording schedules to be established for each camera – 1 profile for periods where the Alarms are set, and a different one for when Alarms are unset. In the Variable Rate Recording page, this means that 6 different recording rates can be defined for each camera, dependant on the situation.

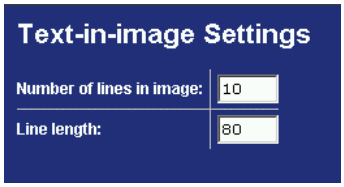
System Set/Unset - Provides a keyswitch environment that allows manual switch-on of the DV-IP alarms. If the system is left Unset, the times specified in schedule will override the system to activate the alarms. Schedule Enable must be ticked for this feature to work.



Normally Closed - If ticked the system will use a normally closed contact. If unticked, the contact is considered normally open.

Holiday Profiles - Provides a 10-day holiday profile list. This enables individual profiles to be defined for special days such as Bank Holidays.

Text in Images



Text in Images is used when a serial port is being used to accept incoming data from, for example, a POS till or ATM machine.

This page specifies the maximum line length of the data and the number of lines of data stored with each image. 80 characters per line is generally a full screen width, thus this is the default value. Trial and Error can be used to discover the best value for individual applications.

Specifying which communication port(s) will store data are specified in the **\ETC\PATHS.ini** file. This can be edited using a text editor. To access files on the DV-IP, FTP software should be used. The file can then be edited on a local PC and uploaded back to the unit. When files are edited in this way, a system reset is recommended to make the changes active.

PATHS.ini file

```
# DV-IP 04-12-02
# ------------------------------------------------------------
# Example ini file to add text for Serial Port-1 to Serial Port-4
#
# Serial Ports 1 = tty
# Serial Ports 2 = term
# Serial Ports 3 = aux1
# Serial Ports 4 = aux2
#
# TEXT00 camera 1....TEXT16 camera16
# The Serial Ports in the to be set as "TEXT" input.
# ------------------------------------------------------------

# ============================================
# Serial Port 1 will store text with Camera-1
# ============================================
[PATH0]
input_path=\tty
output_path=\pipe\TEXT00
buffer_size=80

# ============================================
# Serial Port 2 will store text with Camera-2
# ============================================
[PATH1]
input_path=\termv output_path=\pipe\TEXT01
buffer_size=80

# ============================================
# Serial Port 3 will store text with Camera-3
# ============================================
```

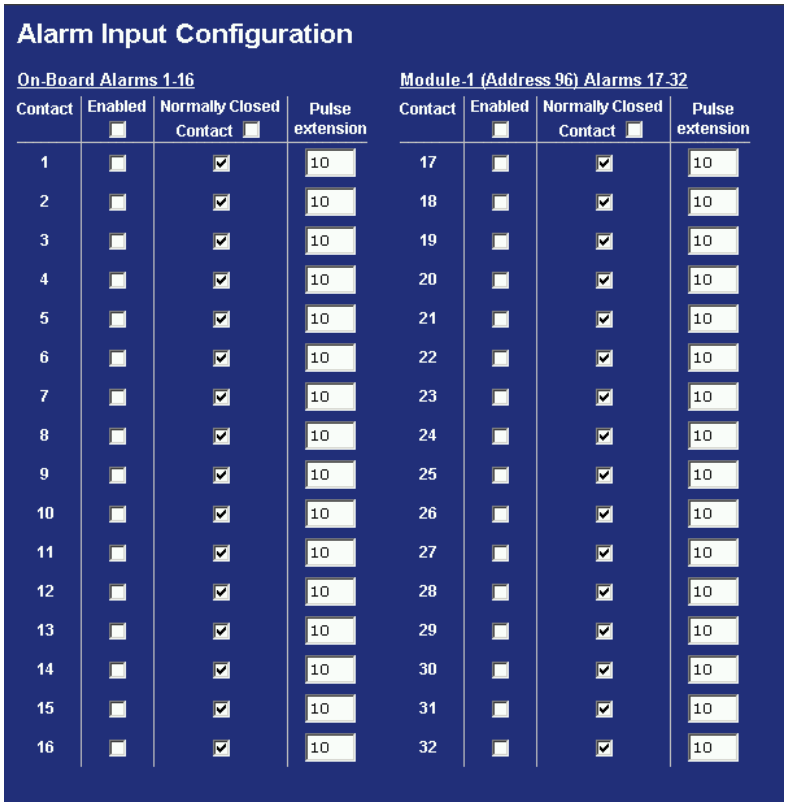
```
[PATH2]
input_path=\aux1
output_path=\pipe\TEXT02
buffer_size=80

# ==========================================
# Serial Port 4 will store text with Camera-4
# ==========================================
[PATH3]
input_path=\aux2
output_path=\pipe\TEXT03
buffer_size=80
```

Alarms Menu

Alarm Inputs

This page is used to enable the alarm contacts used with the DV-IP.



On-Board Alarms - Alarm Inputs 1 to 16.

Contact - Alarm contact number.

Enabled - Enable the alarm contact.

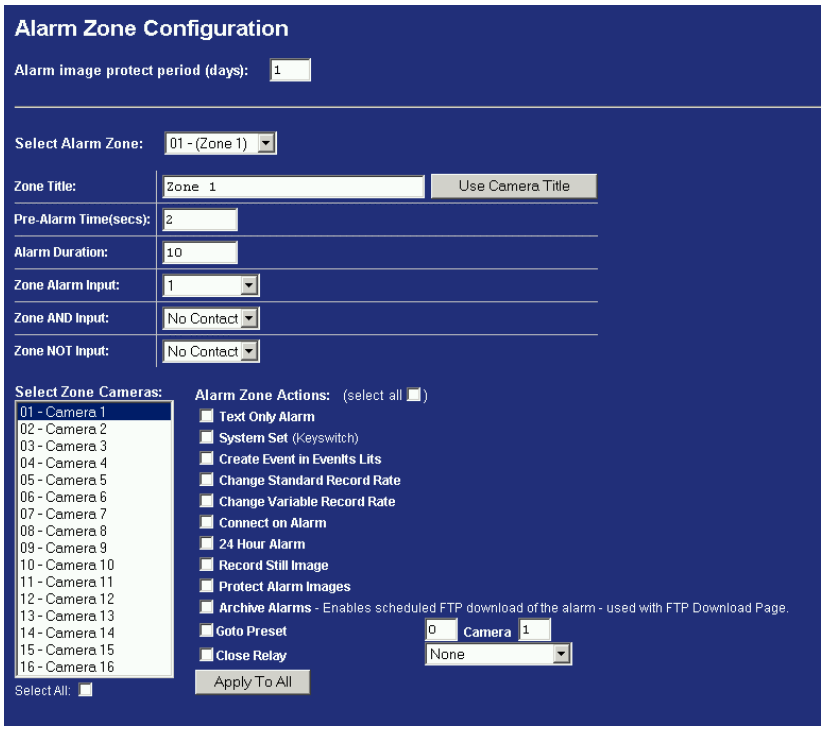
Normally Closed Contact - Defines contact as normally closed.

Pulse Extension - Minimum duration of the alarm event in seconds. For example, if a door with a pulse extension of 10 is opened triggering an alarm event, but closed immediately, the alarm event will still last 10 seconds – and thus the increased recording rate lasts for the full 10 seconds rather than slowing again once the door is closed. If the alarm is opened twice within the pulse extension period, this will only count as one alarm, rather than 2.

External Alarms - Module-1
Optional Alarm Inputs 17 to 32.
The optional RAM (CI01 Remote Alarm Module) provides 16 additional alarms inputs. The Module must be set to Address 96 providing alarm inputs 17 to 32. Instructions are given with the module on how to do this.

Alarm Zone

This page is used to configure the alarm operation on the DV-IP.


Alarm Zone Configuration
Alarm image protect period (days): 1
Select Alarm Zone: 01 - (Zone 1)
Zone Title: Zone 1
Use Camera Title
Pre-Alarm Time(secs): 2
Alarm Duration: 10
Zone Alarm Input: 1
Zone AND Input: No Contact
Zone NOT Input: No Contact
Select Zone Cameras:
01 - Camera 1
02 - Camera 2
03 - Camera 3
04 - Camera 4
05 - Camera 5
06 - Camera 6
07 - Camera 7
08 - Camera 8
09 - Camera 9
10 - Camera 10
11 - Camera 11
12 - Camera 12
13 - Camera 13
14 - Camera 14
15 - Camera 15
16 - Camera 16
Select All:
Alarm Zone Actions: (select all)
Text Only Alarm
System Set (Keyswitch)
Create Event in Evenlts Lits
Change Standard Record Rate
Change Variable Record Rate
Connect on Alarm
24 Hour Alarm
Record Still Image
Protect Alarm Images
Archive Alarms - Enables scheduled FTP download of the alarm - used with FTP Download Page.
Goto Preset 0 Camera 1
Close Relay None
Apply To All

Alarm image protect period - Protect alarm images from being overwritten. Images will become unprotected automatically after the period defined, and will be overwritten.

Select Alarm Zone – An alarm zone is a virtual 'zone' defined by the user. Within each Alarm Zone, any number of cameras can be influenced by the Zone Alarm Input – their recording rates can be increased on alarm event etc… e.g. If Zone 1 contains Alarm Input 1, and cameras 1,2 and 3 are highlighted as zone members, then each time Contact 1 is triggered, cameras 1,2 and 3 are affected by the on-alarm variables defined.

Zone Title - 30 character user definable titles linked to the each zone.

Pre-Alarm time - Defined in seconds – The pre-alarm time is the period before the alarm is triggered when the DV-IP records footage to be viewed with the alarm event.

Alarm Duration – This defines how many seconds of the alarm sequence (including Pre-Alarm) are to be write protected.

Zone Alarm Input – The primary alarm input associated with a zone. The Zone Alarm Input can be used with the Zone AND Input and/or the Zone NOT Input.

Note – VMD can also be designated as Alarm Inputs – Alarm, AND or NOT. This is achieved by selecting one of V1 to V16 in the pulldown menu. This allows VMD activity to cause the same results as the triggering of a contact alarm.

Zone AND Input - User definable double-knock option. Only if the Zone Alarm Input and the Zone AND Input both receive a trigger will the DV-IP go into alarm.

E.g. If the Zone Alarm Input is attached to Door A and the AND input attached to door B, an alarm event will be triggered only if BOTH doors are open at the same time.

Zone NOT Input - User definable double-knock option. Only if the Zone Alarm Input receives a trigger but the Zone NOT Input does not receive a trigger - the DV-IP will go into alarm.

Using a similar example to above, where the Zone Alarm Input is on Door A, and the NOT input on Door B, an alarm event will only be triggered if Door A is open and Door B closed (i.e. NOT open)

Select Zone Cameras - Cameras grouped to a zone. When the zone goes into alarm, all grouped cameras will be part of the alarm sequence, and affected by their 'On Alarm' settings.

Alarm Zone Actions

These variables specify the actions taken when the zone is in alarm:

Text Only – Any alarm will be text only, accompanied by no video images. This may be used when a zone has no associated cameras.

System Set - Enables the alarms when this alarm/zone receives a contact change.

Create Database Entry - Adds this alarm to the Events Database using the Zone Title.

Change Standard Record Rate - Changes the cameras defined in the **Standard Recording** page to the alarm record rate specified.

Change Variable Record Rate - Changes the cameras grouped in the zone and defined in the **Variable Rate Recording** page to the individual alarm record rates defined.

Report on Alarm - Connects this zone to DV-IP Viewer on alarm - defined in the **Alarm Reporting** page.

24 Hour Alarm - This forces the zone alarm to be active 24 hours a day.

Record Still Image - Records a single image at the time of the alarm in addition to the standard recording sequence.

Protect Alarm Images - Write-protects the alarm images on disk associated with this zone for the period defined in the **Alarm image protect period** field.

Archive Alarms - Marks the zone alarm for Automatic FTP Download (see **FTP Download** page)

Goto preset - Drives the selected camera number to a pre-set telemetry position on alarm.

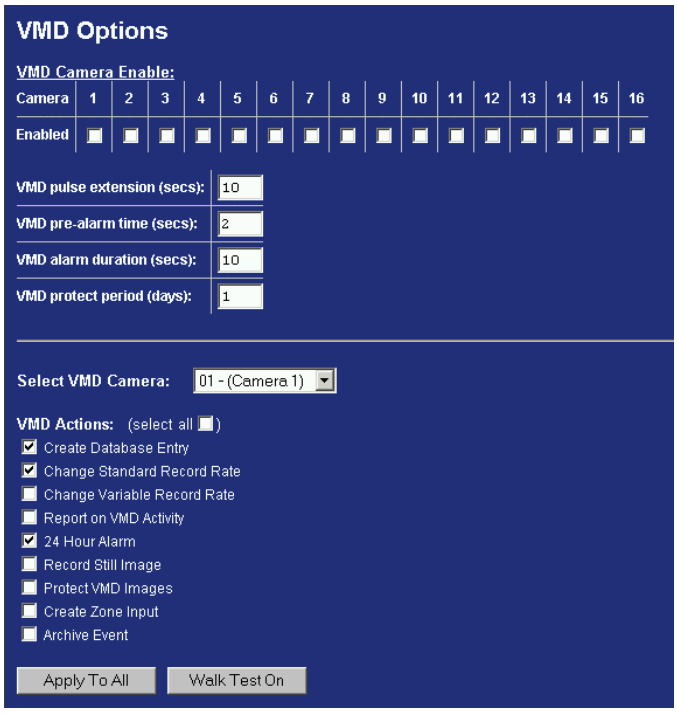
Close Relay - Closes either On-Board Relay-4 or optional relays 1 to 16 on ROM Module-1.

Apply To All - Sets all the alarm zones to use the alarm zone actions specified.

Save settings - Saves the configuration of all the alarm contacts.

VMD

VMD, or Video Motion Detection, allows cameras to automatically detect changes in the scene that they are monitoring, and perform a number of actions such as notify an operator, or increase camera recording rates if required.


VMD Options
VMD Camera Enable:
Camera 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Enabled
VMD pulse extension (secs): 10
VMD pre-alarm time (secs): 2
VMD alarm duration (secs): 10
VMD protect period (days): 1
Select VMD Camera: 01 - (Camera 1)
VMD Actions: (select all)
Create Database Entry
Change Standard Record Rate
Change Variable Record Rate
Report on VMD Activity
24 Hour Alarm
Record Still Image
Protect VMD Images
Create Zone Input
Archive Event
Apply To All
Walk Test On

To establish the best settings for VMD, it is recommended that you undertake testing based on different **Pixel Count** and **Pixel Change** settings. Too high a setting will miss activity, and too low will cause false triggers. The Walk Test will help set the optimum levels by providing a thumbnail image where triggers are seen on screen. VMD triggers can also be seen on the **Live View** as boxes that appear when that particular area is triggered.

VMD Camera Enable - Activates VMD on a per camera basis.

VMD pulse extension - This extends the time in seconds that an alarm is valid for, before another trigger event is activated. For example, if a door with a pulse extension of 10 is opened triggering an alarm event, but closed immediately, the alarm event will still last 10 seconds – and thus the increased recording rate lasts for the full 10 seconds rather than slowing again once the door is closed. If the alarm is opened twice within the pulse extension period, this will only count as one alarm, rather than 2.

VMD Pre-Alarm (Image protection) - The minimum protection period before the VMD trigger.

VMD Alarm Duration - The duration of a VMD alarm – i.e. the length of time for which a VMD alarm is 'in Alarm' and thus performs 'in Alarm' action e.g. increases record rate.

VMD Protect Period - The time period the images will be protected from being overwritten.

Create Database Entry - Records an event in the database using the VMD zone number.

Change Standard Record Rate - Sets the alarm record rate across ALL CAMERAS enabled in the record sequence.

Change Variable Record Rate - Changes the alarm record rate for THIS CAMERA ONLY if the camera is enabled in the **Camera Set-up** page.

Report on VMD Activity - Connects to DV-IP Viewer when the alarm handling functionality is enabled. As configured in the **Alarm Reporting** page.

24 Hour Alarm - VMD will be enabled 24 hours a day on this camera.

Record Still Image - Records a single image at the time of the VMD activation in addition to the ongoing recording. Still Images can be accessed from the STILL button on the Live page.

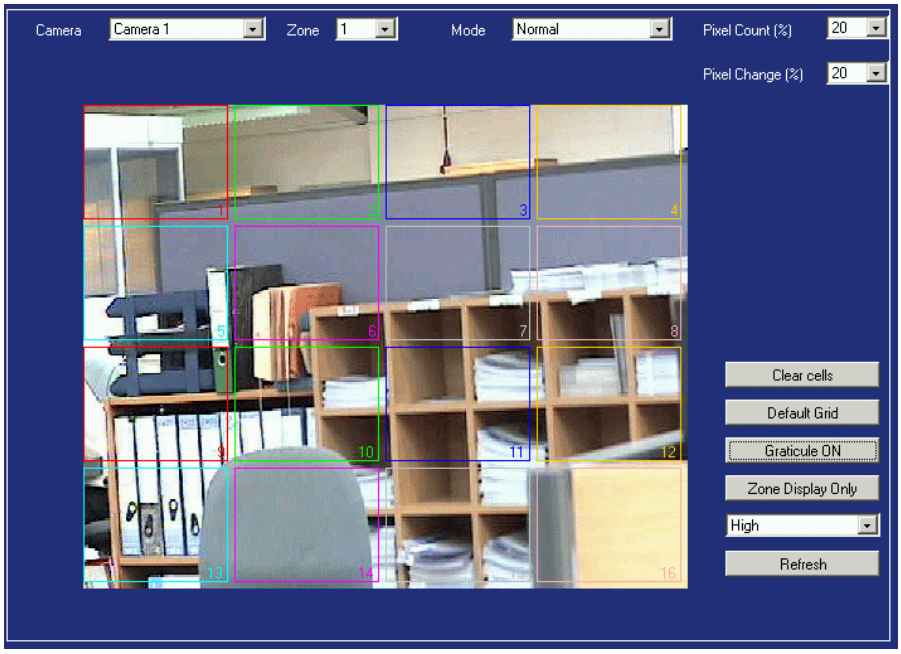
Protect VMD Images - Images associated with this VMD activation will be protected from overwriting using the Pre-Alarm, Alarm Duration & Protect Period parameters.

Create Zone Input - A VMD trigger from this channel will create a zone event. I.e. this must be enabled if you are to use a VMD channel as an Alarm Base contact in the Alarm settings

Archive Event - Mark a VMD event for automatic FTP download (See **FTP Download** page).

Apply To All - Sets all VMD channels to the selected options.

The VMD Configuration box allows you to set 16 individually defined areas per camera, allowing for very complex motion detection. The configuration box has a number of fields defined below:



Camera - Select the Camera for VMD set up.

Zone - Provides 16 independent zones for VMD per camera. Each zone is defined bgy left clicking on the screen for the top-left of the VMD zone, and clicking again on the screen to define the bottom-right corner. The box is drawn to show the size of this zone. To define an additional zone, choose the next zone in the Zone pulldown.

Mode - (Normal, Last Trigger or Static)
Normal - Compares the reference image to the new image.
Last Trigger - For indoor use only. The reference image is compared to the next image received to determine activation.
Static - For indoor use only. A reference image is compared to a new image over a period of ten seconds +.

Graticule ON/Off - Displays the VMD pixel blocks.

VMD resolution - Each image is divided into 80 x 64 pixel blocks.

Pixel Count (%) - This is the percentage of pixels in a zone that are needed to change to invoke an alarm.

Pixel Change (%) - This is the percentage change of the pixel count, or the difference in the grey scale of the pixels.

Clear Cells - Remove all defined zones from an image.

Default Grid - Display 16 pre-defined zones, arranged equally about the image.

Graticule On/Off - Displays a VMD grid to aid definition of the zones.

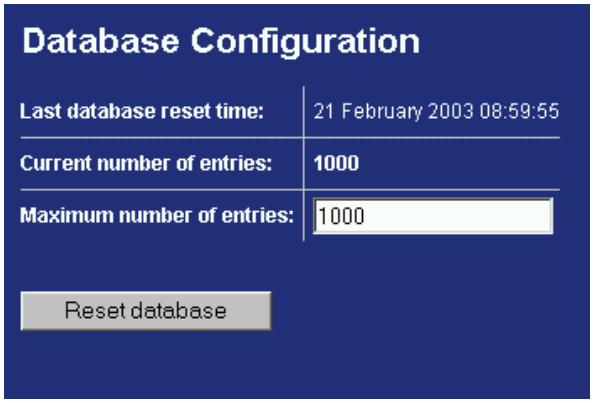
Zone Display Only/Full Display - Displays either the user defined zones or the whole image.

Resolution - High, medium or low resolution reference image.

Refresh - Updates the reference image during set-up.

Walk Test On – This provides a simple test to ensure that setting work as you would expect them. VMD triggers are shown in the thumbnail – allowing you to increase or decrease sensitivity as desired.

Database Configuration

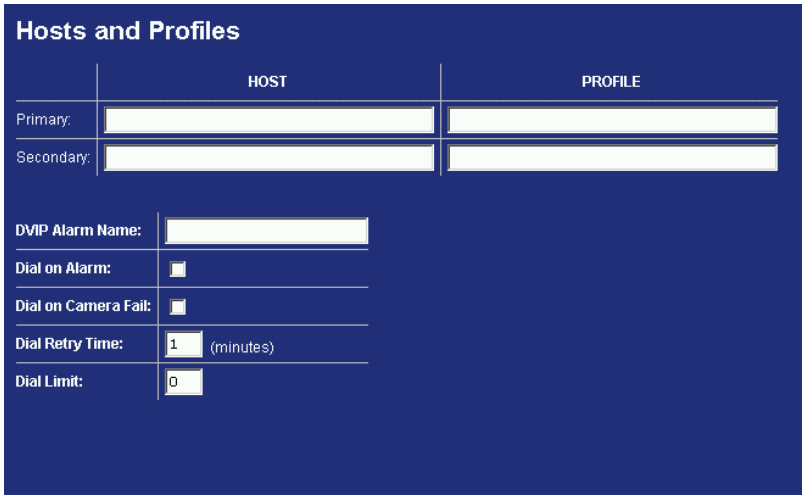


This page shows you the last time the Events database was reset, and current number of events held. It also allows you to set the maximum number of events held in the database, and reset the database, clearing all events.

Alarm Connection Settings

Providing the **Report On Alarm** option is enabled in the **Alarm Zone** page, two alternating profiles provide connectivity to an alarm receiving centre or PC on a Network when used with the DV-IP Viewer Alarm Receiving software.

Should the first connection fail, the second connection will be tried. Should the second fail, the first will be tried again, and so on



Hostname - An IP Address, a name defined in the *etc**Hosts* file (the file *Hosts* in the *etc* directory of the DV-IP) or the name of a PC referenced by a DNS server.

Profile - The dial profile is the method by which alarm connectivity is established.
The profile can set as **Ethernet** to connect over the LAN/WAN/PPP or it can be a named profile in the DV-IP file C:*etc**profiles*.

DV-IP Alarm Name - This is the name of the DV-IP in alarm conditions, as it identifies itself to the DV-IP Viewer alarm receiving software.
Note:- The DV-IP Alarm Name has to match the defined folder name in the DV-IP Viewer PC folder tree.

Dial on Alarm - This needs to be enabled before the DV-IP can connect on alarm. Also needs to be enabled in the **Alarm Set-up** page.

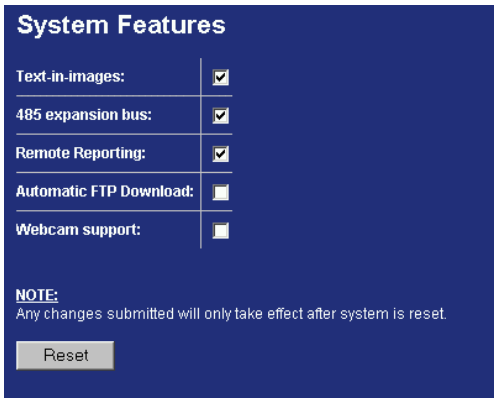
Dial On Camera Fail - Forces a connection when a camera goes into a failed state when enabled in the **Camera Set-up** page.

Dial Retry Time - The delay time before re-connecting after a failed connection (1 to 30 minutes between dials). After 6 failed attempts, the retry time defaults to 30 minutes.

Dial Limit - The number of times the DV-IP will try to connect on alarm. A value of zero indicates no limit is set.

System Menu

System Features



The system features menu is a master control menu for the enabling of 5 features on the DV-IP. If these features are not enabled on this page, they will be inactive, not matter how other pages are set up.

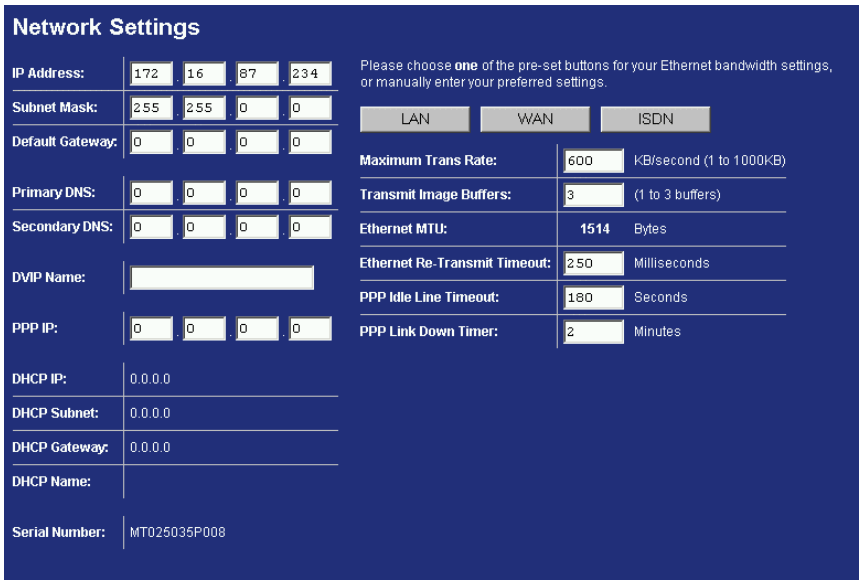
The 5 features are:

Text-in-Images – Enables or Disables the Text in Images feature
RS485 Expansion Bus – the expansion bus on the rear of the DV-IP that accepts DM expansion modules – e.g. the CC01 Remote Alarm Module
Remote Reporting – Enables Connection on Alarm
Automatic FTP Download – Enables the FTP function
WebCam Support – Enables uploading of images to a WebCam server

Note that changes will be activated when the page is saved and the unit reset.

Network Settings

This page displays, and allows changes to, the existing network settings. It also allows for limitation of bandwidth, to ensure the DV-IP only uses as much bandwidth as the user wishes.


Network Settings
IP Address: 172 . 16 . 87 . 234
Subnet Mask: 255 . 255 . 0 . 0
Default Gateway: 0 . 0 . 0 . 0
Primary DNS: 0 . 0 . 0 . 0
Secondary DNS: 0 . 0 . 0 . 0
DVIP Name:
PPP IP: 0 . 0 . 0 . 0
DHCP IP: 0.0.0.0
DHCP Subnet: 0.0.0.0
DHCP Gateway: 0.0.0.0
DHCP Name:
Serial Number: MT025035P008
Please choose one of the pre-set buttons for your Ethernet bandwidth settings, or manually enter your preferred settings.
LAN
WAN
ISDN
Maximum Trans Rate: 600 KB/second (1 to 1000KB)
Transmit Image Buffers: 3 (1 to 3 buffers)
Ethernet MTU: 1514 Bytes
Ethernet Re-Transmit Timeout: 250 Milliseconds
PPP Idle Line Timeout: 180 Seconds
PPP Link Down Timer: 2 Minutes

IP Address - If the IP Address is set to 0.0.0.0, the DV-IP will attempt to obtain an IP Address, Subnet Mask & Gateway from a DHCP server (Dynamic Host Configuration Protocol).

The DV-IP name will be associated to this dynamic IP Address by the DNS server (Domain Name Server). If the IP Address is set to 0.0.0.0 and no DV-IP name is specified, the DV-IP will use the serial number as the URL. Alternatively click the **DHCP** "button" and this will set the defaults for use with a DHCP server.

Subnet Mask - Specifies the Subnet Mask.

Gateway - This is usually the IP address of the router that provides connectivity outside of the LAN. (Local Area Network). Setting the Gateway to 0.0.0.0 will provide connectivity only within a LAN.

Primary & Secondary DNS - This allows you to specify the location of a Primary or Secondary DNS server or Alternatively click the **DHCP** button and this will set the defaults for use with a DHCP server.

DV-IP Name - The name used as a reference/URL by the DNS server when an IP address is dynamically assigned by a DHCP server.

Base IP - The PPP IP Address used when the DV-IP dials on alarm or receives and dial in connection (PPP_Link2) This PPP IP Address is independent of the main DV-IP IP Address.

DHCP IP - IP Address automatically assigned if the DHCP server is used.

DHCP Subnet - Subnet Mask automatically assigned if the DHCP server is used.

DHCP Gateway - Gateway automatically assigned if the DHCP server is used.

DHCP Name - Name defined in the DV-IP Name field plus any network extensions assigned if the DHCP server is used.

Chassis Number - Serial Number of the DV-IP that is automatically assigned to an IP address if the DHCP server is used.

NOTE - The following Bandwidth limitation controls seriously affect the transmission operation of the DV-IP.

LAN, WAN, ISDN & PSTN - These buttons set the defaults for the maximum bandwidth usage regardless of the amount of connections.

Maximum Transmit Rate - Controls the bandwidth used by the DV-IP over Ethernet or PPP (Point to Point Protocol).

Transmit Image Buffers - Image buffers are used in order to improve the picture delivery over Ethernet when used with slow connections i.e. 256Kb or less. Multiple buffers allow the next image to be collected or read from disk while the current image is being transmitted. Using a single image buffer improves the response to camera selections over slow links e.g. PSTN.

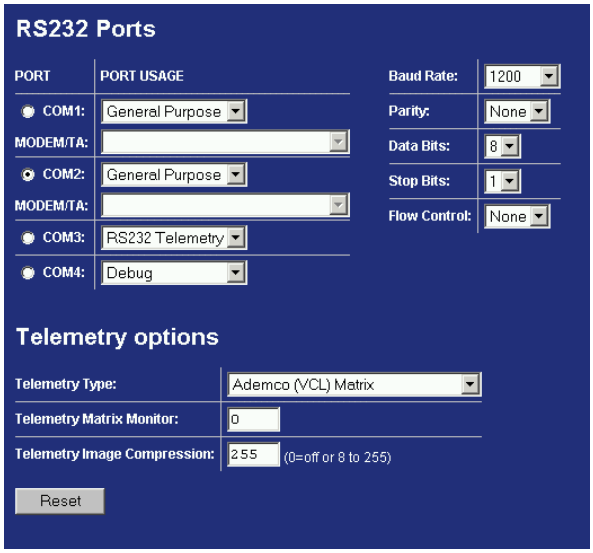
Ethernet MTU (Maximum Transmit Unit) - Ethernet packet size. (Fixed at 1514 bytes).

Ethernet re-transmit timeout - Timeout controls the delay before a data packet is retransmitted if there is no acknowledgement. Systems connecting to a WAN over Ethernet will require an increased timeout to match the router. Please speak to the I.T. Manager for this setting.

Modem/Terminal Adapter PPP Options
PPP Idle Line timeout - (Seconds) Should a connection be left open where there is no data traffic, the DV-IP will hang up. **PPP Link Down Timer** - (Minutes) Should a connection be lost, this setting forces the DV-IP to drop the PPP connection.

Serial Ports and Telemetry

This page is used to configure the four communication ports on the DV-IP web server.



NOTE: Changes will only take effect when saved and the DV-IP unit is reset.

COM1 & COM2

Debug - Mode that provides useful DV-IP system data.

General Purpose - Engineering test mode.

PPP - Allows remote access via an external modem or terminal adapter
PPP_Link1 (COM2) is the priority PPP port.
PPP_LINK2 (COM1) is a secondary PPP port.

MODEM/TA - Provides dropdown list of modems (PSTN) and terminal adapters (ISDN).

Text in Image - Embeds text into the header of a specific camera with a definable line length (in characters) and number of lines to record. This file is configured in the *\ETC\paths.ini* file in the DV-IP Web Server Area.

Off - Disables the communication port.

COM3 & COM4

Debug - Mode that provides useful DV-IP system data.

General Purpose - Engineering test mode.

Telemetry - The following telemetry options are available

PPP - Allows remote access via an external modem or terminal adapter.

Text In Image - Embeds text into the header of a specific camera with a definable line length (in characters) and number of lines to record. This file is configured in the

*ETC**paths.ini* file in the DV-IP Web Server Area.

Off - Disables the communication port.

Telemetry Options

Note:- Enabling RS232 telemetry disables coaxial telemetry.

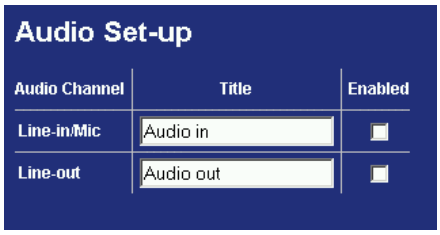
Telemetry Type - Options available:

Ademco (VCL) - Maxcom Matrices (RS232)/Video Controls Ltd
American Dynamics Matrix (RS232)
American Dynamic Matrix 168 (RS232)
Building Block Video - TX1000 or TX1500 + BBus-Interface Matrices
Dedicated Micros (RS232) star commands
Off - Disables the communication port.

Telemetry Matrix Monitor – Selectable when RS232 telemetry is enabled. This provides control over a specific matrix monitor output on a Matrix.

Telemetry Image Compression – Forces a higher or lower compression rate to images when telemetry cameras are moved.
0 = off, 8 to 255 are the telemetry compression options.
8 being the lowest compression value providing a high resolution image.
255 (default setting) being the highest compression value providing a low resolution image. Values of 1 to 7 are not accepted or used.

Audio Set-up

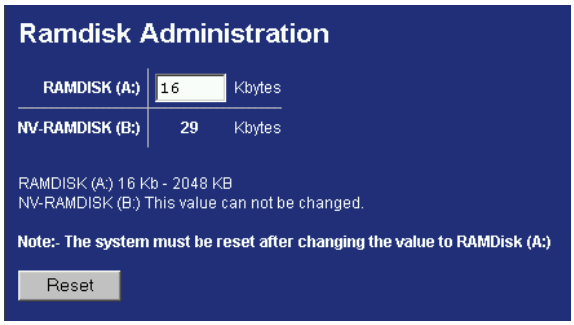


This page is used to initiate audio recording. Audio can be listened to, and the microphone activated, using the DV-IP Viewer software.

Line-in/Mic - When enabled, the DV-IP records audio attached to the Line-Input of the DV-IP. Audio is only recorded when presented to the DV-IP.

Line-out - When enabled, the DV-IP records audio transmitted from a PC with DV-IP Viewer software.

Ramdisk

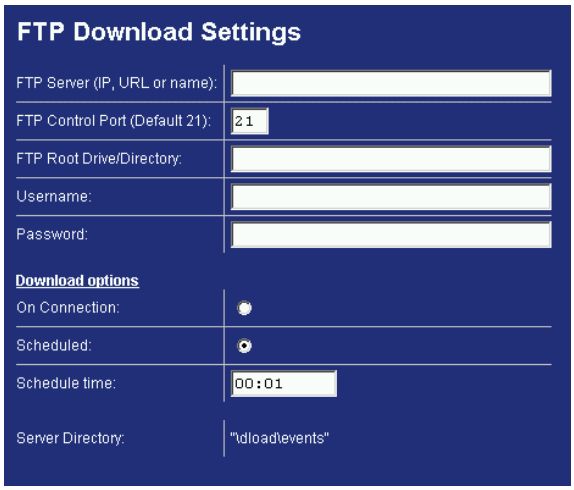


RAMDISK - Definable pre-alarm images buffer.

The Variable Rate Recording page indicates the size of RAMdisk available for pre-alarm images. The RAMdisk is configurable from 16KB to a maximum buffer size of 2048 KB.

NV-RAMDISK - This is a fixed size defined by on the DV-IP.

FTP Event Download



This page is used to set configuration options for automatic download of events to a specified FTP server. This allows for remote storage of alarm events. E.g. In a multi-DV-IP installation, this allows all events from all units to be stored on a central server.

FTP Server - This specifies the FTP Server to connect to. The server can be specified by its IP address, full URL or a name. If the server is specified by name, the current domain will be used to address the FTP server.

Username - Username for FTP login purposes.
Password - Password for FTP login purposes. This must be entered every time the page is submitted.

Download Options

On connection - This option is selected to start an FTP download when an active Ethernet connection is detected.

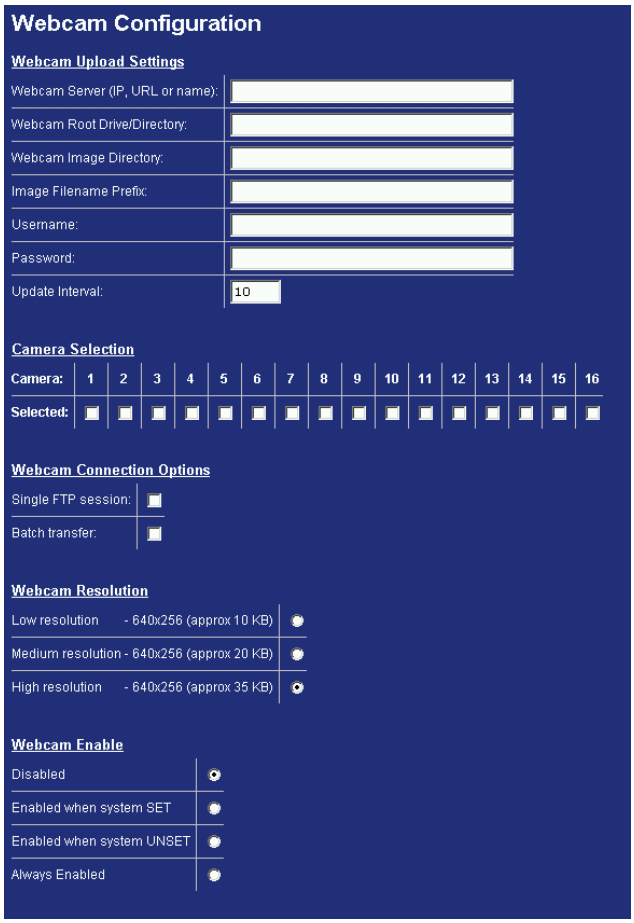
Scheduled - This option is selected to start an FTP download at a scheduled time every day (if the Ethernet connection is present).

Schedule Time - Time of day (hh:mm) to start a scheduled download.

Server Drive - Drive letter on the FTP server for storing video data.

Server Directory - Main directory on the FTP server for storing video data. Sub-directories based on the Video Server name and date will be created under here.

Webcam Set-up



This page is used to configure one or more cameras as 'WebCams' – i.e. the images are made available to a web server for use on web pages. The selected cameras will be uploaded by FTP to a Web Server for viewing by anyone who has access to the server on the Intranet or Internet.

A sample WebCam page for viewing the images is distributed as *\pcbin\webcam.html* on the DV-IP.

WebCam Upload Settings These settings configure the FTP connection to the host Web Server
WEBCAM Server - This is the FTP connection to the Web Server as provided by the ISP.

WEBCAM Root Directory - This setting is used to select the home drive/directory.

WEBCAM Image Directory - Path to the directory where the Images are to be uploaded.

Image Filename Prefix - Prefix for sequential filenames to upload to the web server. If this prefix is 'cam_', for example, the uploaded files will be cam_01.jpg, cam_02.jpg etc

Username - Username for FTP login purposes.

Password - Password for FTP login purposes. This must be entered every time the page is submitted for security reasons.

Update Interval - This option sets the minimum update between each image. This is used to limit the bandwidth used for the upload process.

Camera Selection - Allows selection of which cameras to enable as WebCams.

WebCam Connection Options - This configures the FTP connection to the host.

Single FTP Session - Selecting this option avoids the login/logout procedure for each image. The video server will stay connected to the ISP until it is disabled or there is a connection error.

Batch Transfer - Selecting this option transfers all camera images in one batch. With this option the Update Interval is the delay between all images being updated. Without this option the Update Interval is the delay between each camera update.

WebCam Resolution - This sets the image resolution for the WebCam images.

WebCam Enable - This sets when the WebCam updates are enabled to the host system.

Disabled - WebCam updates are never performed. This is intended to temporarily disable the all WebCams without clearing the Camera Selection mask.

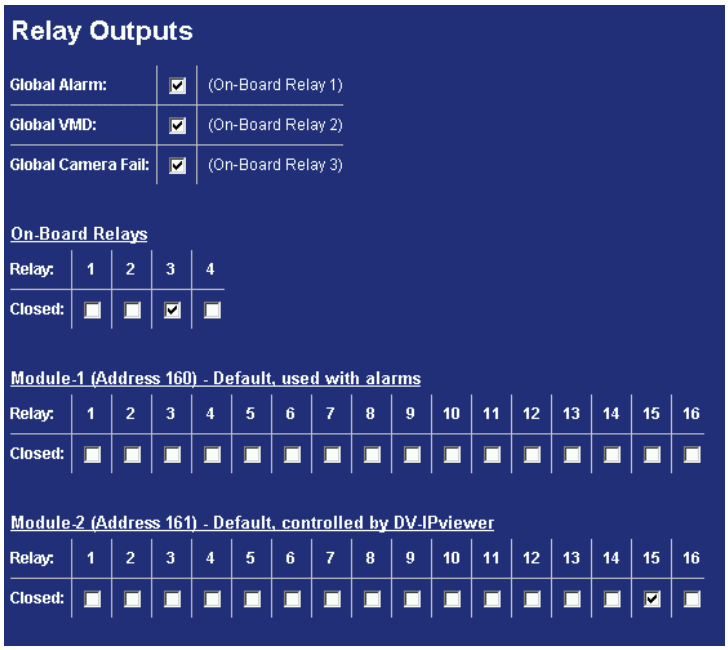
Enabled when system SET - WebCam images will only be updated to the host server when the system is in the SET mode. SET and UNSET modes are selected by contact or the schedule.

Enabled when system UNSET - WebCam images will only be updated to the host server when the system is in the UNSET mode. SET and UNSET modes are selected by contact or the schedule.

Always Enabled - WebCam images will be continuously updated to the host server.

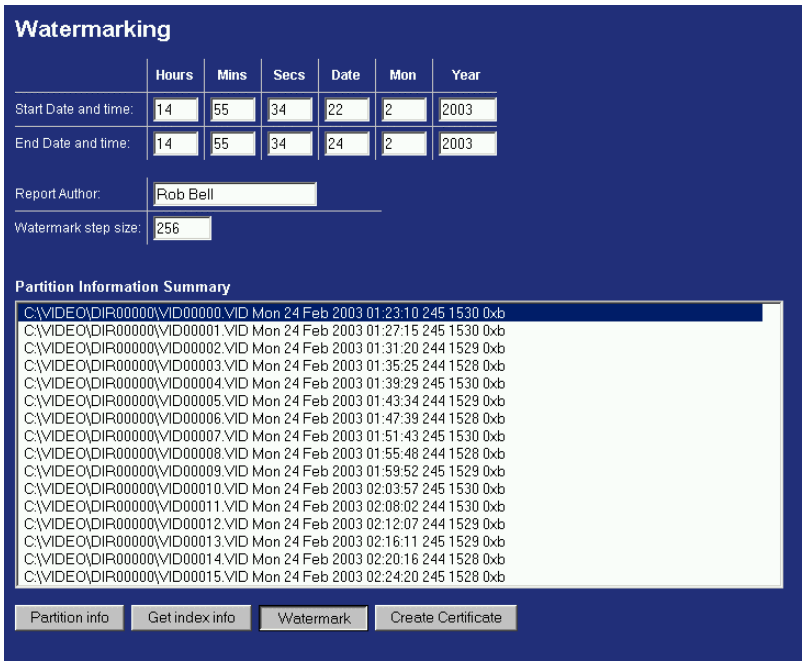
Relay Test Page

This page is used to test the 4 on-board relays or optional 485 BUS expansion ROM modules


Relay Outputs
Global Alarm:
(On-Board Relay 1)
Global VMD:
(On-Board Relay 2)
Global Camera Fail:
(On-Board Relay 3)
On-Board Relays
Relay: 1 2 3 4
Closed:
Module-1 (Address 160) - Default, used with alarms
Relay: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Closed:
Module-2 (Address 161) - Default, controlled by DV-IPviewer
Relay: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Closed:

Watermarking

This page is used to examine the video partition index information and to generate Watermark certificates. These watermarks prove that an image has not been altered or tampered with by producing MD5 signatures that change if any alterations are made to the image files.


Watermarking
Hours
Mins
Secs
Date
Mon
Year
Start Date and time:
14
55
34
22
2
2003
End Date and time:
14
55
34
24
2
2003
Report Author:
Rob Bell
Watermark step size:
256
Partition Information Summary
C:\VIDEO\DIR00000\VID00000.VID Mon 24 Feb 2003 01:23:10 245 1530 0xb
C:\VIDEO\DIR00000\VID00001.VID Mon 24 Feb 2003 01:27:15 245 1530 0xb
C:\VIDEO\DIR00000\VID00002.VID Mon 24 Feb 2003 01:31:20 244 1529 0xb
C:\VIDEO\DIR00000\VID00003.VID Mon 24 Feb 2003 01:35:25 244 1528 0xb
C:\VIDEO\DIR00000\VID00004.VID Mon 24 Feb 2003 01:39:29 245 1530 0xb
C:\VIDEO\DIR00000\VID00005.VID Mon 24 Feb 2003 01:43:34 244 1529 0xb
C:\VIDEO\DIR00000\VID00006.VID Mon 24 Feb 2003 01:47:39 244 1528 0xb
C:\VIDEO\DIR00000\VID00007.VID Mon 24 Feb 2003 01:51:43 245 1530 0xb
C:\VIDEO\DIR00000\VID00008.VID Mon 24 Feb 2003 01:55:48 244 1528 0xb
C:\VIDEO\DIR00000\VID00009.VID Mon 24 Feb 2003 01:59:52 245 1529 0xb
C:\VIDEO\DIR00000\VID00010.VID Mon 24 Feb 2003 02:03:57 245 1530 0xb
C:\VIDEO\DIR00000\VID00011.VID Mon 24 Feb 2003 02:08:02 244 1530 0xb
C:\VIDEO\DIR00000\VID00012.VID Mon 24 Feb 2003 02:12:07 244 1529 0xb
C:\VIDEO\DIR00000\VID00013.VID Mon 24 Feb 2003 02:16:11 245 1529 0xb
C:\VIDEO\DIR00000\VID00014.VID Mon 24 Feb 2003 02:20:16 244 1528 0xb
C:\VIDEO\DIR00000\VID00015.VID Mon 24 Feb 2003 02:24:20 245 1528 0xb
Partition info
Get index info
Watermark
Create Certificate

To watermark images, follow the steps below:

The time range is set up using the "Start time and date" and "End time and date".

When the time period has been set up the partition information can be uploaded by pressing the "Partition info" button. The selection window will then display the partition information covering the specified time period.

If an individual partition is selected, it's index information can be viewed by selecting the "get Index Info" button.

The watermark codes are generated by pressing the "Watermark" button. The step size through the partition is specified in the "Watermark step size" text box. This specifies the skip distance between bytes used in the watermark calculation e.g. A step of 1 uses every byte in the video partition in the watermark calculation. A smaller step size results in a longer calculation time. Progress/completion is indicated by messages in the status bar.

After generating the watermark codes, A certificate can be created by pressing the "Create Certificate" button. If required, the report author's name should be entered in the "Report Author" text box.

The certificate can be printed out if required.

Reset

This page contains a reset button, which is used to reboot the unit. The reset happens immediately on confirmation of reset, and the countdown represents the period until the html pages can be accessed again i.e. the time for a restart to execute.

Sometimes, the unit has to be reset for settings to be stored – i.e. those held in Non-Volatile memory.

The System Logs

The DV-IP produces log files for PPP Connections, Anonymous FTP Connections, Illegal file access attempts, and FTP and Telnet users.

These logs are enabled in the **Logs** menu, under **System Logs Set-up**. The logs will not be seen on the System Logs menu until the boxes are ticked and the page saved.

Logfile

The Logfile page shows a log of System information such as startups, resets and timed set/unsets.

Connection Log

This log details connections to the unit, with user name for easy identification.

Anonymous FTP log

This details anonymous FTP connections to the unit. Setting up a password can prevent anonymous connections to the unit – this is done by editing the *USERS.ini* file found in the *ETC* directory of the DV-IP.

Security Log

This details illegal file access attempts.

Operation using the Onboard(HTML) Viewer

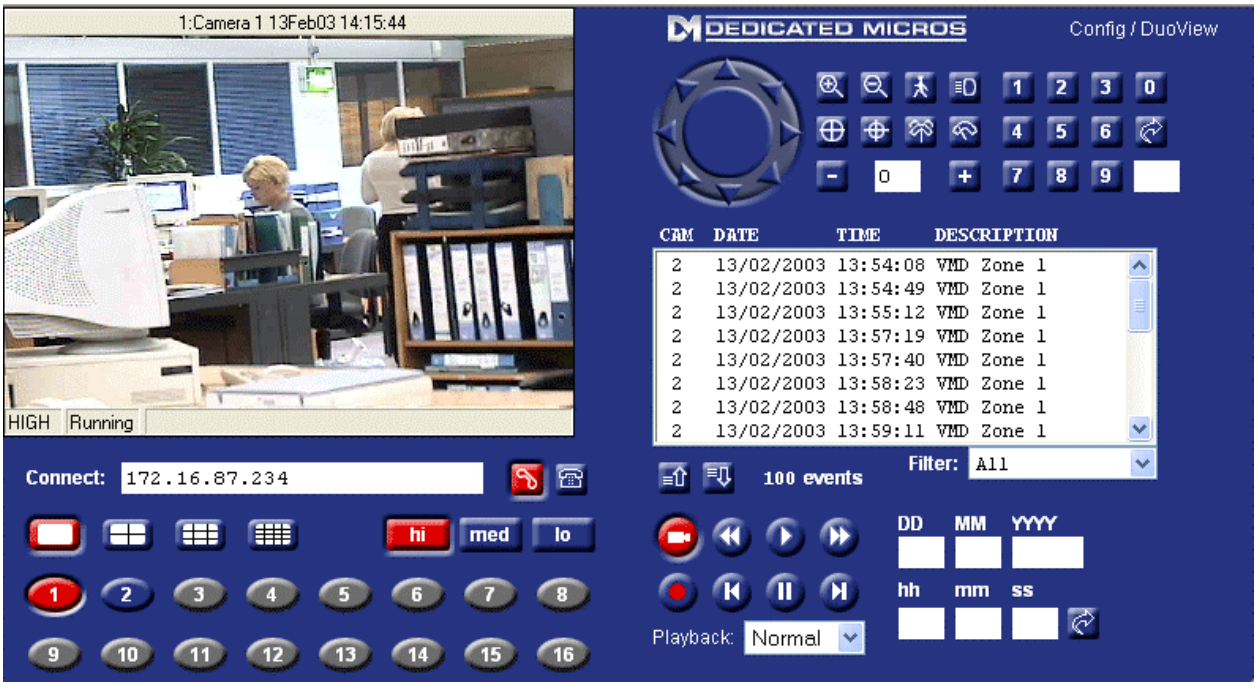
The onboard viewer is a set of onboard HTML pages accessed through a standard web browser (see below). These pages allow you to configure the DV-IP and view the pages locally. For multi-user viewing and alarm receiving, the DV-IP Viewer application on the CD should be installed.

Supported Systems:

Operating System: Windows 98SE, ME, NT4 SP6, 2000 and XP
Internet Browser: IE 5.5 onwards, Netscape 4.7

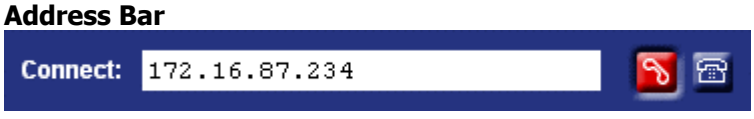
Note: Dedicated Micros do not currently support DV-IP using Operating Systems or Web Browsers not listed above.

Live Page



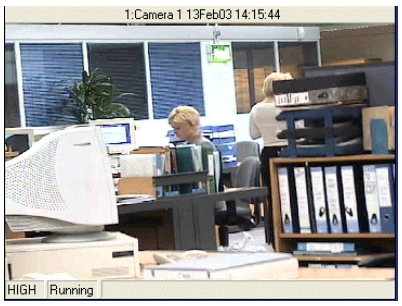
The live page is the first page seen when you log onto the DV-IP using a standard web browser such as IE6. This page allows you to view live or recorded images from any camera on the system. Note you can only view recorded images from those cameras set to record in configuration. The optimum screen resolution on your PC is 800x600 (This can be set by right clicking on your desktop, clicking properties from the resulting options, then selecting the Settings tab and moving the slider to 800x600)

Address Bar



The address shown in the bar is the DV-IP currently connected to. Although DV-IP Viewer is recommended for viewing multiple DV-IPs, you can also view other DV-IPs from this page by typing the IP Address into the box above. The buttons to the right of the box are **Connect** and **Disconnect** respectively.

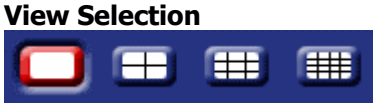
Viewscreen



This is where images are displayed. Images in this screen can be images of a single camera, quad display, 9-way or 16-way. At the top of the viewscreen, the grey bar shows (from L to R) Camera Number, Camera Title, Date, Time (24 hour).

Right clicking on the display will copy the image to the Windows Clipboard, where it can be pasted into another application. This works for all views – a 16-way view will be copied in the same way as a Single.

View Selection



The type of display is selected from the buttons above – from left to right: **Single Camera**, **Quad View**, **9 Way**, **16 Way**. Quad views and above take their cameras in sequential order from the first selected camera, so in a quad view, selecting camera 1 will give cameras 1 to 4, selecting camera 5 will give 5 to 8 and so on.

Resolution Selection

There is a choice of 3 resolutions – **high**, **medium** and **low** – the actual image resolution and file size settings for each button are set up in the **Camera Set-up** page.

Camera Selection

The available cameras can be selected from the above buttons – those available are pictured in blue, whereas others are greyed out and cannot be selected. The first selected camera is marked in red.

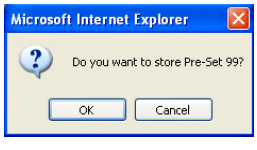
Telemetry Control

Once telemetry is set up in **Configuration**, complete control of the PTZ cameras is possible. The Joystick offers movement in 8 directions, and the speed of movement is controlled using the plus and minus signs – the current movement speed setting is displayed in the number box (0 in the picture).

The telemetry controls are (from left to right):
Top Row: **Zoom In**, **Zoom Out**, **Patrol**, **Lights On/Off**
Middle Row: **Iris Open**, **Iris Close**, **Washer**, **Wiper**
Bottom Row: **Reduce Movement Speed**, **Current Speed**, **Increase Speed**

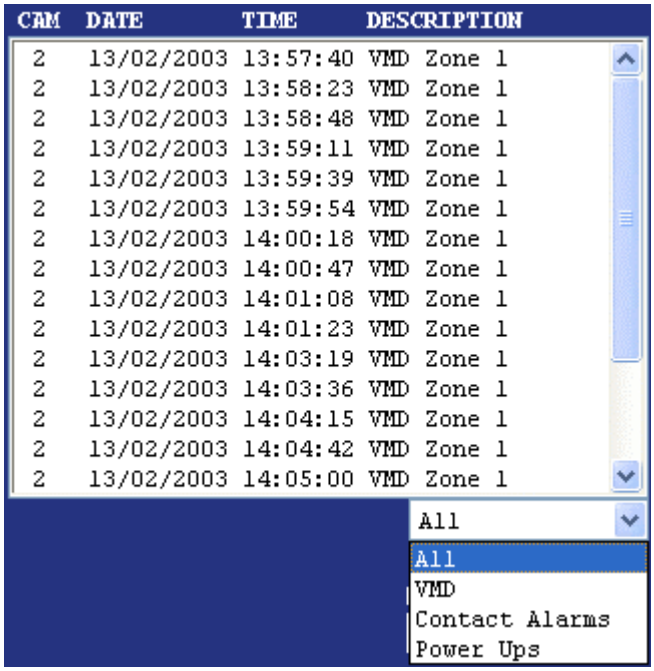
Preset Control

The control offers up to 100 presets, dependent on the ability of the PTZ camera. Presets are defined by clicking the number buttons (from 0 to 99) to select a preset, moving the camera to the desired position, then right clicking the last number depressed. This will bring up a confirmation box like so:



Once **OK** is clicked, the preset is stored, and can be activated by clicking the numbers and then the Arrow button above the display field.

Events Database



The events database is a listing of all Power Ups, VMD Alarm Events, and Contact Alarm Events. This database is automatically updated every time a new event occurs. Events can be accessed simply by double clicking on the event in the database, or by clicking the event in the database, then clicking the **Play** button (see below)

Events are listed with the following information (from L to R): Camera Number, Date, Time, Description of Alarm (ie type of alarm, settings). The total number of events available is listed to the right of the next and previous event block buttons

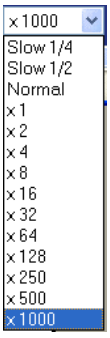
Events are listed in blocks of twenty. Where more than 20 events are recorded, the **Next Event Block** and **Previous Event Block** buttons can be used to move through the listings.

(L to R) Previous Event Block, Next Event Block, Total Number of Events

Player Controls

The DV-IP controls are set-up to be similar to those found on a VCR. The button currently selected is highlighted in red – in the picture below, for example, the **Live View** button is depressed.

From Left to Right:
Top Row: **Live View**, **Rewind**, **Playback**, **Fast Forward**
Middle Row: **Record to Local Storage**, **Frame Rewind**, **Still**, **Frame Advance**
Bottom Row: **Rewind/Fast Forward Speed** pulldown menu
The playback speed button affects **rewind** and **fast forward** speed only. Speed can be set from ¼ normal speed to 1000 times normal speed.



Note: The **Record** button is a record to desktop function for saving live or recorded footage *to the PC desktop*. **It does not affect recording to the DV-IP Hard Disks in any way**.

Instant Go-To Date & Time

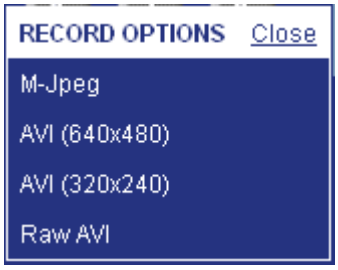
To access any point in time recorded on the DV-IP hard drive, the Instant Go-To function should be used. The Date and Time are input into the fields (as seen in the picture), then the Arrow button pressed. Whichever cameras are being viewed will then immediately be seen with footage from the time and date selected. If a time and date are selected that are before footage has been recorded for any camera, then an 'Image not Available' image will be seen.

Specific Tasks

Recording to PC or network storage

To record the footage being viewed, be it live or recorded, follow the steps below:

1. If you want to capture recorded footage, either rewind to the desired time, or use the Instant Go-To fields.
2. Once you have reached the desired time, click the **Record** button in the controls
3. This brings up the Record Options – in there you can select the type of video you wish to record as – either M-JPEG, Raw AVI, or 2 resolutions of AVI. Once this is selected, recording will start if you are viewing live footage. If you are viewing replay footage, you need to press the **Play** button to start the recording.
4. To stop recording, press the **Record** button again.
5. The recorded file can now be found on your PC desktop. To play back the footage, use the DV-IP VCR programme bundled with your unit.



Setting up Telemetry Control

Coaxial Telemetry

The DV-IP Supports coaxial telemetry for PTZ cameras and Domes using Pelco or BBV compatible Coax protocols.

To set up coax telemetry, follow the instructions below:

1. Enter the **Config** pages
2. In the **System** Menu, select **Serial Ports and Telemetry**
3. In the **Telemetry Type** pulldown menu, select **Coax(BBV/Pelco)**
4. **Save** the page, then **reset** the unit to store the settings. The unit can be reset by pressing the **reset** button
5. Go back to the **Config** menu
6. In the **Cameras** Menu, select **Camera Set-up**
7. On the Camera Set-up page, select the type of telemetry desired from the **Coax Telemetry** column which should now have appeared.
8. **Save** the page
9. Go to the **System** Menu, then to **Reset** and reset the Unit
10. Your changes have now been applied. Go to the camera set for telemetry and test the functionality.

RS232 Telemetry

RS232 Telemetry can be used with the following Matrices: Ademco(VCL), American Dynamics, BBV. The DM * Commands protocol is also available.

1. Enter the **Config** pages
2. In the **Cameras** menu, in **Camera Set-up**, ensure no cameras are set with Coax telemetry
3. In the **System** Menu, select **Serial Ports and Telemetry**
4. In the **Telemetry Type** pulldown menu, select the relevant telemetry type
5. Select a serial port using the radio button next to the relevant COM number, then change the pulldown option to **Telemetry**

6. Configure the serial port settings as follows:
   Baud Rate: **9600**
   Parity: **None**
   8 Data Bits
   1 Stop Bit (Unless VCL Ademco, when it should be set to **2** Stop Bits)
   Flow Control: **None**

7. **Save** the page – your changes may appear not to have been registered. They will not become active until you reset the unit.
8. **Reset** the unit to store the settings. The unit can be reset by pressing the **Reset** button
9. Go back to the **Config** menu and check the **Serial Ports and Telemetry** menu settings to make sure everything is correct.
10. Test the functionality.

Password Protecting the DV-IP

The DV-IP has password protection for Viewing Live & Recorded footage, Configuration, Telnet, and FTP. This helps prevent unauthorised access to areas restricted by the administrator.

Default Passwords

The unit comes with several default passwords. For each, the user name is always **dm**
The passwords are as follows:

Configuration Pages	= **web**
FTP	= **ftp**
Telnet	= **telnet**
Serial	= **serial**

As every DV-IP has these passwords by default, you are advised to change them to something more personal.

Configuring Password Protection on the DV-IP

Passwords are held in 2 files on the DV-IP – the *USERS.ini* and *WEBUSER.ini* file. These can be found in the */ETC* directory on the unit. These files can be accessed via ftp, edited, then uploaded onto the unit.

Before you make changes to either password file, it is recommended you make a copy of the default file, in case you wish to restore it later.

USERS.ini
The *USERS.ini* file holds the usernames and passwords for ftp, telnet and serial access. These can be seen below. To alter the user names and passwords, change the relevant text in the file, then upload the changed file to the unit.

e.g. Original Settings for FTP are dm=ftp (dm = user name, ftp = password), shown as below:

[FTP]
dm = ftp

To change the password, edit the file in text editor and change dm = ftp to:

user = password

So the new user name is **user** and the new password is **password**

Save the file and upload it to the unit, reset the unit and the changes will become active.

If you wish to define multiple user names and passwords for a unit, add each new user name and password below the existing one:

e.g. existing info:

```
[FTP]
dm=web
```

to add user names and passwords, just add below the existing –

```
[FTP]
dm=web
user=password
third=here
another=user
```

USERS.ini File

```
# DV-IP v1.0 12-12-02

[FTP]
dm=ftp

[Telnet]
dm=telnet


[Serial]
# serial=password
```

WEBUSER.ini

The WEBUSER.ini file holds user names and passwords for accessing live view, playback and configuration. It also holds user name and password details for when accessing the unit via DV-IP Viewer.

To change the user name and password, locate the existing user name and password for each section (these are highlighted in blue in the sample file below). The file below is set up for password protected Configuration. To enable password protection for the each other section, remove the # sign in front of each 'object =' line up to the user name and password lines.

To remove password protection, add a # to the start of each 'object =' line for the relevant section. If two or more user names are desired, add each new user name and password below the existing information,

WEBUSER.ini File

```
#
#####################################################
#       Webuser Version DV-IP v1.3  (10-12-02)      #
#####################################################
#
#
[UNlock]
        object=frmpages/dvip_unlock.shtml
```

```
# --  Users Passwords  --
        username=unlock
#
[DV-IP Configuration]
#       object=replay_pic.cgi
#       object=display_pic.cgi
#       object=webpages/index.shtml
        object=frmpages
#       object=webpages/admin.html
#
#      object=frmpages\getcsv.class
#      object=webpages/blank.html
#      object=webpages\ptz_ctrl.jar
#      object=webpages/images/back.jpg
#      object=webpages/rep_blank.html
#      object=webpages/viewctrl.shtml
#
#      object=webpages/view.html
#      object=webpages/images.html


#       object=dvip/index.shtml

        object=config/index.html
        object=config/main.html
        object=config/outlook.html
                object=config/jscript/crossbrowser.js
                object=config/jscript/outlook.js

      object=webpages/admin.html
            object=frmpages/ad_features.shtml
            object=frmpages/ad_nonvol.shtml
            object=frmpages/ad_rdisk.shtml
#
            object=frmpages/ad_timedate.shtml
#
            object=frmpages/ad_cam.shtml
            object=frmpages/ad_record.shtml
            object=frmpages/as_cam.shtml
            object=frmpages/ad_image.shtml
            object=frmpages/ad_epos.shtml
#
            object=frmpages/ad_alarm.shtml
            object=frmpages/ad_zone.shtml
            object=frmpages/ad_vmd.shtml
            object=frmpages/ad_almsrv.shtml
            object=frmpages/ad_dbase.shtml
#
            object=frmpages/ad_mail.shtml
            object=frmpages/ad_sms.shtml
#
            object=frmpages/ad_timer.shtml
                  object=frmpages/ad_holidays.shtml
#
            object=frmpages/ad_serial.shtml
            object=frmpages/ad_system.shtml
            object=frmpages/ad_aux.shtml
```

```
#
            object=frmpages/ad_logs.shtml
                  object=logs/connect.txt
                  object=logs/access.txt
                  object=logs/security.txt
                  object=logs/log.txt
                  object=logs/bak.txt
            object=webpages/about.html
                  object=frmpages/ad_register.shtml
#
            object=webpages/confirm.shtml
#
      object=webpages/vmdpic.shtml
#
      object=webpages/status.shtml
      object=webpages/vp.shtml
#      object=webpages/description.html
#
     object=pcbin/setup.exe
     object=pcbin/desktop.exe
#
      object=webpages/calib.shtml
      object=webpages/vt_begin.html
      object=webpages/sync.shtml
      object=webpages/system.shtml
#
# --  Users Passwords  --
         dm=web

#
[Playback]
#
#  Below is PLAYBACK Camera protection
#  for webpages
#
#       object=cgi
#       object=replay_pic
#       object=replay_pic.cgi?cam=1
#       object=replay_pic.cgi?cam=2
#       object=replay_pic.cgi?cam=3
#       object=replay_pic.cgi?cam=4
#       object=replay_pic.cgi?cam=5
#       object=replay_pic.cgi?cam=6
#       object=replay_pic.cgi?cam=7
#       object=replay_pic.cgi?cam=8
#       object=replay_pic.cgi?cam=9
#       object=replay_pic.cgi?cam=10
#       object=replay_pic.cgi?cam=11
#       object=replay_pic.cgi?cam=12
#       object=replay_pic.cgi?cam=13
#       object=replay_pic.cgi?cam=14
#       object=replay_pic.cgi?cam=15
#       object=replay_pic.cgi?cam=16
#
#
# --  Users Passwords  --
         playback=playback
```

```
[Live]
#
#  Below is LIVE Camera Protection for webpages
#  (Resolution) res=hi, res=med or res=low
#
#         object=display_pic.cgi?cam=1&res=low&seq=000000
#
#       object=cgi
#       object=display_pic.cgi?cam=1
#       object=display_pic.cgi?cam=2
#       object=display_pic.cgi?cam=3
#       object=display_pic.cgi?cam=4
#       object=display_pic.cgi?cam=5
#       object=display_pic.cgi?cam=6
#       object=display_pic.cgi?cam=7
#       object=display_pic.cgi?cam=8
#       object=display_pic.cgi?cam=9&res=low
#       object=display_pic.cgi?cam=10&res=med
#       object=display_pic.cgi?cam=11&res=hi
#       object=display_pic.cgi?cam=12&res=med
#       object=display_pic.cgi?cam=13&res=low
#       object=display_pic.cgi?cam=14&res=hi
#       object=display_pic.cgi?cam=15&res=med
#       object=display_pic.cgi?cam=16&res=low
#
# --  Users Passwords  --
       live=live
#
DVIPviewer Security]
#         object=replay_pic.cgi
#         object=display_pic.cgi
#
# --  Users Passwords  --
          dvip=viewer
```

Using DuoView™

About DuoView™

DuoView™ is a new concept seen on the DV-IP. The DuoView™ page allows you to view both live and recorded footage from any cameras, on the same PC screen simultaneously.

The DuoView™ screens are controlled using the same controls as seen on the Live View page. The only difference is the tick boxes used to indicate control of the left or right screen (known as the Live Images Screen or Replay Images Screen). Both screens can, in fact, be used as live or replayed views.

Control of a screen is indicated by a tick in the box next to the screen title – on the picture above, the screen under control is the Replay Images screen. If both screens are ticked, then both are controlled simultaneously, and any button pressed will affect both screens.

Using the DuoView™ to Compare Live and Replay Footage

1. Tick both boxes to control both screens
2. Select the cameras and view you want (Single, quad, 9-way or 16-way)
3. Untick the Live Images screen, leaving the Replay Images screen ticked
4. Select the Date and Time you wish to compare Live to, and enter these in the Date/Time fields. Press the arrow button to Instant Go-to that point in time.
5. Press play, and the replay footage is displayed in the Replay Images screen – it can now be controlled using the Playback controls, and compared to the Live Images screen

Using the DuoView™ to view 8 Live Cameras in 2 Quad Displays

1. Tick just the Live Images screen

2. Select the first camera in the Quad sequence – this will display that camera, and the next 3 in sequence
3. Untick the Live Images box
4. Tick the Replay Images Box
5. Again, select the first camera in the Quad Sequence
6. Press the Live button in the playback controls

You will now see up to 8 different cameras on the 2 screens, 4 in each Quad View. This will also work in the other views – Single, 9-Way and 16-Way

Version Info

Version 1.0	25th Feb	First Internal Release	Rob Bell
1.01	28th Feb	Second Release	Rob Bell
	Added CIF resolution, additional info into Standard Record page		